ABSTRACT

A circuit and method are given, to realize a high-voltage control and driver interface as integrated circuit, especially for use in connection with four external components, inductor L and capacitor C as well as low-side and high-side switching transistors as found e.g. in half-bridges. The circuit is essentially self supplied by means of an intrinsically floating auxiliary supply power generation and regulation scheme. The circuit is apt to supporting high main supply voltages up to 1000V. The circuit of the invention is realized without the need for any internal high-voltage integrated semiconductor devices. Exploiting the advantages of that solution the circuit of the invention is manufactured with standard CMOS technology and only four discrete external components, which is favorably lowering the cost of production.